

## SNF Stabilization and Disposition (RL-0012)

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*K Basins Closure Project  
K West Basin final pass vacuuming*



*Central Plateau D&D  
K East Basin grouting  
activities*



*Sludge Treatment Project  
(STP) Settler Tank  
Retrieval test hose reel*

## Overview

This section addresses work in Project Baseline Summary (PBS) RL-0012, *Spent Nuclear Fuel (SNF) Stabilization and Disposition*. There are three major components to this work scope:

- K Basins Closure Project [M. W. Peres].
- Sludge Treatment Project (STP) [D. G. Ruscitto].
- Deactivation and Decommissioning (D&D) [R. E. Wilkinson].

NOTE: Unless otherwise noted, all information contained herein is as of the end of November 2007.

## Notable Accomplishments

### SNF Stabilization and Disposition (PBS RL-0012)

#### K East Deactivation and Decommissioning (D&D) Project

- Completed the management assessment and initiated removal of sand from the sand filter.
- Obtained RL and Environmental Protection Agency (EPA) approval of the Deactivation Remedial Design Report/Remedial Action Work Plan (RDR/RAWP).
- Completed installation of the Ion Exchange Column (IXC) vents in preparation for grouting and began installation of the IXC grout forms.
- Initiated shop fabrication of the basin dewatering system, and field installation of the fixative application system.

#### K West Basin Floor and Pit Sludge Retrieval (FPSR)

- Completed final pass vacuuming of 1603 cubicles (78 percent overall completion)
- Relocated Primary Process Table and six racks to provide unobstructed access to the basin floor.
- Completed final pass of East Bay and Dummy Elevator Pit.

#### Legacy Fuel

- Received first of three PAS-1 Cask shipments from Washington Closure Hanford, Inc. (WCH).
- Completed 74 percent of Cold Vacuum Drying Facility (CVDF) preventative maintenance activities and 85 percent of procedure revisions for Fuel Processing restart.

#### Sludge Treatment Project (STP)

- Submitted Critical Decision (CD)-1 Baseline Change Request (BCR) on 11/21/07.
- Completed Ultrasonic Testing (UT) developmental activities and received test report from AREVA.

## Issues

### SNF Stabilization and Disposition (PBS RL-0012)

#### K East Deactivation and Decommissioning (D&D) Project

- Final development of the BCR to incorporate the approach developed in the Value Engineering session is taking longer than anticipated; baseline progress requires interpretation. Downgrade will occur with the addition of the basin fill material.
- Sand filter sand removal is progressing slowly due to blockages incurred in the pump during sluicing operations. System improvements are being implemented.

## Issues, continued

### K Basins Closure Project

- Maintaining qualified personnel required for Multi-Canister Overpack (MCO) startup.
- Delay of debris canister sorting; additional quantity received from K East.
- Removal of CERCLA waste to the Environmental Restoration Disposal Facility (ERDF); the extra debris campaigns in K East and K West Basins require an increase in the resources to complete disposition.

### STP

- Central Characterization Project (CCP) contracted with Waste Isolation Pilot Plant (WIPP); liaison impacts design (shifting Waste Acceptance Criteria [WAC] direction from DOE).
- Establishing a WIPP Certified Lab at Hanford.
- Addressing potential for new Remote-Handled Transuranic (RH-TRU) Waste Storage Facility.

## FY 2008 Funds vs. Spend Forecast (\$M)

	Projected FY 2008 Funding	FY 2008 Fiscal Year Spending Forecast	Variance
SNF Stabilization & Disposition	\$ 106.4	\$ 100.3	\$ 6.1

## Schedule/Cost Performance (\$M)

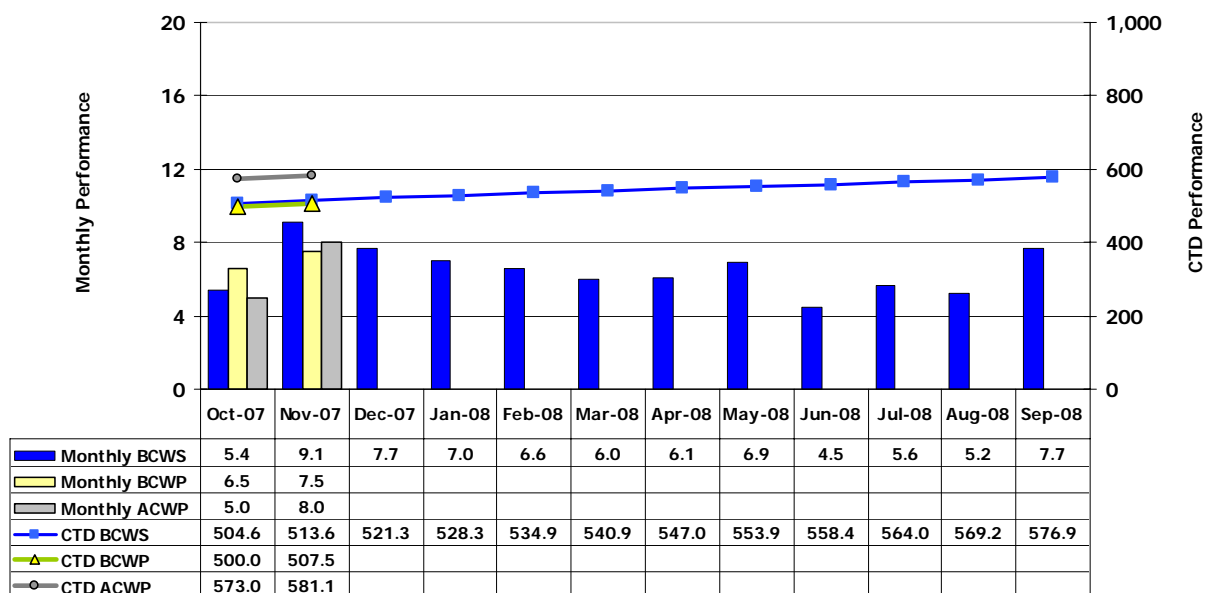
SNF Stabilization & Disposition	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY08/ CTD)
Current Period (Month)	\$9.1	\$7.5	\$8.0	-\$1.6	-17.3%	-\$0.5	-7.2%	\$77.8
Cumulative-to-Date (FY 2004 - Present)	\$513.6	\$507.5	\$581.1	-\$6.2	-1.2%	-\$73.6	-14.5%	\$576.9

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

- **CTD Schedule Performance (-\$6.2M/-1.2%):** Unfavorable SV is due to delays in Legacy Fuel work scope and K East to K West Sludge Transfer system D&D; delays approving Authorization Basis (AB) changes and coordination with other D&D activities. Delays in K East D&D are pending implementation of baseline update reflecting implementation of value engineering actions. Delays in the Sludge Treatment Project in design review, procurement, and construction activities are due to the decision to implement the CD process into design requirements.
- **CTD Cost Performance (-\$73.6M/-14.5%):** The unfavorable CV is primarily due to problems encountered in design, implementation, startup, and operation of spent fuel removal, sludge containerization, and transfer systems. System complexity and requirements were underestimated. Most of the cost variances were incurred prior to FY 2006.

## Schedule/Cost Performance (\$M), continued

### Performance Analysis CTD and Monthly (\$M)



## Milestone Achievement

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones and Defense Nuclear Facilities Safety Board (DNFSB) commitments represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The FY 2008 Enforceable Agreement milestone/DNFSB commitment information provided herein is based upon the current baseline including RL-approved changes. Changes from month-to-month in both the total number of milestones to be completed and in the forecast status of upcoming milestones are the result of BCRs approved during the reporting period.

Number	Milestone Title	Type (TPA/PI/DNFSB)	Due Date *	Actual Date	Forecast Date	Status / Comments
M-034-33B (S10-05-018)	Complete K East Sludge Containerization	TPA	03/01/05	10/20/06		Complete
DNFSB 119E (S10-05-014)	Complete K East Bulk Sludge Consolidation	DNFSB	10/31/06	10/20/06		Complete
M-034-34 (S10-05-010)	Complete Removal of K East Sludge	TPA	05/31/07	05/31/07		Complete
DNFSB 120E (S10-05-015)	Complete K East Basin Containerized Sludge Removal	DNFSB	05/31/07	05/31/07		Complete
DNFSB 122E	K East Final Pass Sludge Removed	DNFSB	05/31/07	05/31/07		Complete
M-034-35a (S10-05-011)	Containerize K West Bulk Sludge	TPA	07/31/07	07/03/07		Complete
DNFSB 119W (S10-05-016)	Complete K West Bulk Sludge Containerization	DNFSB	07/31/07	07/03/07		Complete
M-034-35b (S10-05-011)	Complete K West Final Pass	TPA	01/31/08		01/04/08	Ahead of Schedule

\* DNFSB dates reflect Implementation Plan update, TPA dates reflect change package M-34-05-04, forecast dates are current working level schedules.